

January 19, 2001

## FACT SHEET

### PROPOSED AIR TOXICS STANDARDS FOR COKE OVENS: PUSHING, QUENCHING AND BATTERY STACKS

#### TODAY'S ACTION

- ! The Environmental Protection Agency (EPA) is proposing a regulation to reduce emissions of toxic air pollutants from coke oven batteries.
- ! Coke is used in blast furnaces in the conversion of iron ore to iron, which can be further refined to produce steel. Coke plants produce coke from coal, using coke oven batteries. A battery consists of a group of ovens connected by common walls.
- ! Emissions from coke ovens include a mixture of polycyclic organic matter, polynuclear aromatic hydrocarbons, benzene and other air toxics known, or suspected to cause cancer and other health problems.
- ! Today's proposed action focuses on reducing air toxics from pushing, quenching, and battery stacks for coke oven batteries. The proposal would allow facilities to comply with the rule's requirements using a combination of pollution prevention, work practices and control devices.
- ! EPA worked with stakeholders, including coke plants, industry representatives, and state and local agencies in developing the proposal.
- ! EPA will accept comment on the proposal through 90 days after publication of the proposed rule in the *Federal Register*. After reviewing all comments, the Agency anticipates issuing the final rule in 2001.

#### HEALTH AND ENVIRONMENTAL BENEFITS

- ! The proposed rule would reduce toxic air emissions from pushing, quenching, and battery stacks by about 500 tons per year - a 50 percent reduction from 1999 levels.
- ! The air toxics reduced by this proposed rule include polycyclic organic matter, polynuclear aromatic hydrocarbons, benzene, toluene and xylene. The health effects associated with exposure to these air toxics can include cancer, leukemia, central nervous system effects, and acute health disorders such as respiratory and skin irritation.

- ! EPA estimates the total annual costs for facilities to comply with the proposed rule to be \$14 million, including costs for rebuilding ovens, monitoring, recordkeeping and reporting. The Agency anticipates the rule would increase the price of furnace coke by 1.5 percent and decrease production by 2 percent. One battery producing furnace coke may close as a result of the rule.

## **WHAT THE PROPOSED RULE REQUIRES**

- ! The proposed rule applies to each new or existing coke oven battery at any coke plant that is a major source. Major sources are those that emit 10 tons per year or more of a single toxic air pollutant, or 25 tons or more of a combination of toxic air pollutants.
- ! The proposed requirements are based on the equipment and procedures in place at well-controlled coke oven batteries. To meet the proposed standards, some facilities will need to rebuild ovens, others will need to implement a work practice program for diagnosis and repair of problem ovens, and a few will need to install equipment to control quenching emissions.
- ! The rule includes both emission limitations and work practice standards.
  - < **Pushing.** Pushing is the process of removing the coke from the oven after the coal has been coked. The proposed rule includes two options for pushing, and based on comments received after proposal, EPA will promulgate one of the options or a combination of the two. One option is an opacity limit based on the daily observations of four pushes. The second option is a work practice standard that would place failing ovens under scrutiny until they are repaired or taken out of service.

For facilities that use control devices, EPA also is proposing emission limits for particulate matter (PM) as a measure of the device's level of performance.

- < **Quenching.** During quenching, the incandescent coke is cooled by deluging it with water. To address quenching emissions, sources would be required to use clean water as makeup water, equip quench towers with baffles, and inspect and repair baffles on an ongoing basis.
- < **Battery stacks.** The proposed rule establishes opacity limits and requires the installation and operation of continuous opacity monitors (COM) for battery stacks.

In addition, all batteries would be required to operate at all times according to an operation and maintenance plan to ensure good operation and maintenance of batteries and control equipment.

- ! Monitoring requirements include daily opacity observations, continuous opacity monitoring systems, bag leak detection systems, continuous parameter monitoring systems, and inspections. Performance tests are also required at least twice during each 5-year permit term for a control device applied to pushing emissions.
- ! The recordkeeping and reporting requirements in the proposed rule are similar to those required for other EPA air toxics regulations.

### **FOR MORE INFORMATION**

- ! To download a copy of the proposed rule, go to EPA's World Wide Web site at <http://www.epa.gov/ttn/oarpg/> under newly proposed or issued rules.
- ! For further information about the proposed rule, contact Ms. Lula Melton of EPA's Office of Air Quality Planning and Standards at (919) 541-2910 or [melton.lula@epa.gov](mailto:melton.lula@epa.gov).
- ! Send any comments on the proposed rulemaking (in duplicate if possible) to: Air and Radiation Docket and Information Center (6102), Attention: Docket No. A-2000-34, Room M-1500, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460. You may also submit comments and data by electronic mail (e-mail) to: [A-and-R-Docket@epamail.epa.gov](mailto:A-and-R-Docket@epamail.epa.gov). Submit electronic comments as an ASCII file to avoid the use of special characters and encryption problems or in WordPerfect® version 5.1, 6.1, or Corel® 8 file format. Electronic comments and data must note the docket number (Docket No. A-2000-44). You may file electronic comments online at many Federal Depository Libraries. Do not submit confidential business information (CBI) by e-mail. See the *Federal Register* notice for more information on how to handle the submittal of CBI.
- ! EPA's Office of Air and Radiation's homepage on the Internet contains a wide range of information on the air toxics program, as well as many other air pollution programs and issues. The Office of Air and Radiation's home page address is: <http://www.epa.gov/oar/>.